

2



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,472	09/17/2001	Hing Wing To	3882/11A	7746
29858	7590	06/03/2005	EXAMINER	
BROWN, RAYSMAN, MILLSTEIN, FELDER & STEINER LLP 900 THIRD AVENUE NEW YORK, NY 10022			DINH, KHANH Q	
			ART UNIT	PAPER NUMBER
			2151	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/955,472	Applicant(s) TO ET AL	
	Examiner Khanh Dinh	Art Unit 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

PD

DETAILED ACTION

1. This is in response to the Amendment filed on 3/16/2005. Claims 1-12 and new claims 13 and 14 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by McNamara, US Pat. No.6,262,976.

As to claims 1, 13 and 14, McNamara discloses a method for resolving anomalies within a network topology map (a list of neighboring nodes adjacent to the router to generate a map of the topology of the network, see col.2 lines 18-46 and col.5 lines 3-14), the method comprising:

identifying an anomaly including a conflicting link within a received topology map (using ring check links to identify missed data packet in all links, see fig.16, col.21 line 47 to col.22 line 37), the conflicting link comprising a source port on a network device and one or more conflicting destination ports on one or more other network devices (see col.22 lines 38-58), resolving the conflicting link through the use of one or more virtual

Art Unit: 2151

devices (executing link selection algorithms) within the topology map, the one or more virtual devices being representative of one or more of network devices and replacing the conflicting link with a link to the one or more virtual devices based upon the resolution of the conflicting link (see abstract, fig.18, col.22 line 59 to col.23 line 54 and col.25 lines 14-59).

As to claim 2, McNamara discloses determining a number of conflicting destinations from the source of the conflicting link, resolving the source of the conflicting link and resolving the conflicting destination (see col.21 line 39 to col.23 line 58 and col.23 lines 9-54).

As to claims 3 and 4, McNamara discloses identifying a link between two virtual devices; and merging the virtual devices and locating two or more entries in a link table showing the source to be linked to two or more different destinations (see col.21 line 39 to col.23 line 58 and col.23 lines 9-54).

As to claims 5 and 6, McNamara discloses grouping together entries in the link table having the same source into a conflict group and replacing the conflicting link with a link to the virtual device comprises removing the conflicting link from the link table and inserting the link to the virtual device in a virtual link table (see col.21 line 39 to col.23 line 58 and col.23 lines 9-54).

As to claim 7, McNamara discloses generating a virtual link table for storing one or more links to virtual devices (see fig.34, col.23 line 9 to col.24 line 40 and col.32 lines 14-59).

As to claim 8, McNamara discloses first determining whether the source or a destination in the conflicting link is linked to a first virtual device and replacing the conflicting link with a link to a virtual device only if neither the source nor a destination is linked to the first virtual device (see col.21 line 39 to col.23 line 58 and col.23 lines 9-54).

As to claim 9, McNamara discloses determining whether the source or destination is linked to a virtual device comprising first determining whether the source is linked to a virtual device then determining whether a destination in the conflicting link is linked to a virtual device (using ring checks links algorithm, see col.21 line 39 to col.23 line 58 and col.23 lines 9-54).

As to claims 10 and 11, McNamara discloses if the source is linked to a first virtual device, replacing the source with the first virtual device and if a destination in the conflicting link is linked to a first virtual device, creating a link from the source to the first virtual device if the source in the conflicting link is not a virtual device (using ring checks links algorithm, see col.21 line 39 to col.23 line 58 and col.23 lines 9-54).

As to claim 12, McNamara discloses a computer readable medium storing a data structure representing a virtual link table, the data structure comprising:

one or more entries showing a link between a source device in a network and a first virtual device, the source device being identified in a received topology map of a network and the first virtual device not being identified in the received topology map (using ring check links to identify missed data packet in all links, see fig.16, col.21 line 47 to col.22 line 37),

one or more entries showing a link between a destination device in the network and the first virtual device, the destination device being identified in the received topology map (executing a ring checks links algorithm) and the virtual link table data structure being used by an executable program to display an improved topology map of the network (see abstract, fig.18, col.22 line 59 to col.23 line 54 and col.25 lines 14-59).

Other prior art cited

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Datta et al., US pat. No.6,493,341.

Response to Arguments

5. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Claims 1-14 are rejected.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (571) 272-3936. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on (571) 272-3939. The fax phone number for this group is (703) 872-9306.

A shortened statutory period for reply is set to expire THREE months from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned (35 U. S. C . Sect. 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(A).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/955,472

Page 7

Art Unit: 2151

A handwritten signature in cursive script, appearing to read 'Khanh', is written above a horizontal line.

Khanh Dinh
Patent Examiner
Art Unit 2151
5/29/2005